REMARKS

Reconsideration of the application in light of the amendments and the following remarks is respectfully requested.

A. Status of the Claims

Claims 1-15 were pending in the present application before this amendment. By the present amendment, claims 2, 6, 8, 9, 11, 12, 14 and 15 have been cancelled, and claims 1, 3, 4 and 5 have been amended. Claims 16-19 have been added. No new matter has been added. Thus, claims 1, 3, 4, 5, 7, 10, 13, and 16-19 are pending in the present application.

B. 35 U.S.C. §103 Rejections

Claims 1-15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over 3GPP TS 33.220 v6.0.0 (2004-03) 3rd Generation Partnership Technical Specification Group Services and System Aspects; Generic Authentication Architecture (GAA); Generic Bootstrapping architecture (Release 6) 22 March 2004 {herein after referred to as "**3**GPP"} in view of Faccin (PCT Pub. No. WO 03/014953).

These rejections are respectfully traversed. Applicant respectfully submits that 3GPP and Faccin, individually or in combination, fail to teach or suggest all claim limitations of amended claim 1 and therefore, cannot render claim 1 obvious.

Claim 1 is directed to a method for a roaming user to establish a security association with an application server in a visited network. Specifically, claim 1 recites:

> the application server in the visited network receiving a service request message from the roaming user, said service request message containing a Bootstrapping-Transaction Identifier (B-TID), the B-TID being assigned to the roaming user by a Bootstrapping Server Function (BSF) based upon a mutual authentication of the roaming user with the BSF that performs user identity initial verification in a generic authentication architecture in a home network of the roaming user;

the application server in the visited network inquiring from an authentication entity in the visited network about the roaming user's user information associated with the B-TID, the user information comprising user authentication results of the generic authentication architecture in the roaming user's home network;

the authentication entity finding out the home network to which the user belongs according to the B-TID;

the authentication entity acquiring the user information associated with the B-TID from the BSF in the roaming user's home network, and returning the acquired user information to the application server;

the application server in the visited network obtaining the roaming user's user information comprising the user authentication results of the generic authentication architecture in the roaming user's home network; and

the application server in the visited network establishing a security association with the roaming user according to the user authentication results of the generic authentication architecture in the roaming user's home network..

Applicant respectfully submits that 3GPP and Faccin, individually or in combination, fail to teach or suggest at least the features that "the application server in the visited network inquiring from an authentication entity in the visited network about the roaming user's user information associated with the B-TID, the user information comprising user authentication results of the generic authentication architecture in the roaming user's home network; the authentication entity finding out the home network to which the user belongs according to the B-TID; the authentication entity acquiring the user information associated with the B-TID from the BSF in the roaming user's home network, and returning the acquired the user information to the application server" as recited in claim 1.

Applicant respectfully submits that 3GPP fails to disclose the above features.

First, 3GPP at best discloses that "Zh interfaces protocol…allows the BSF to fetch the required authentication information and subscriber profile information from the HSS" (Section 4.4.3); and "NAF shall be able to detect the home network and the BSF of the UE from the Transaction Identifier" (Section 4.3.7). That is, in the 3GPP, **the BSF fetches subscriber profile information from HSS, and the NAF detects the home network**. The entity from which the

subscriber profile information was fetched, i.e. HSS, and the entity that detects the home network, i.e. NAF, **are not the same entity**.

However, in the claim 1 of the present invention, "the application server in the visited network inquiring from an authentication entity in the visited network the roaming user's user information associated with the B-TID, the user information comprising user authentication results of the generic authentication architecture in the roaming user's home network; the authentication entity finding out the home network to which the user belongs according to the B-TID", means that it is **the application server inquires of the authentication entity** about the roaming user's user information, and **the authentication entity finds out the home network**. The entity which inquired about the roaming user's user information and the entity that found the home network **are the same entity**, i.e. the authentication entity.

Second, 3GPP at best discloses that the BSF retrieves the user profile from the HSS through the Zh interface (#2 in section 4.5.2 and Figure 3). Claim 1 of the present invention requires that "the authentication entity acquiring the user information associated with the B-TID from the BSF in the roaming user's home network" and "an authentication entity in the visited network". That is **one entity in the visited network acquires user information from another entity in the home network**. However, **the 3GPP fails to disclose** the BSF is in visited network and the HSS is in the UE's home network.

Moreover, **the user information** acquired by the authentication entity from the BSF **comprises user authentication results** of the generic authentication architecture **in the roaming user's home network**. However, **nowhere does 3GPP discloses** that the user profile retrieved by the BSF from the HSS comprises user authentication results of the home network.

Lastly, 3GPP at best discloses that the UE checks AUTN and calculates CK, IK and RES, and sends an HTTP request to the BSF (#4 and #5 in section 4.5.2 and Figure 3). **Nowhere in**

3GPP is it disclosed that "the authentication entity...returning the acquired the user information to the application server" as recited in the claim 1 of the present invention.

Applicant further respectfully submits that Faccin also fails to disclose the above features.

Faccin at best discloses that the Visited GW 230 transmit an identity and a MAC from the Mobile Node 200 to the Home Network GW 240. The Home Network GW 240 forwards the message to the Subscriber database/Authentication Center 260. The Subscriber database/Authentication Center 260 verifies the correctness of the MAC and negotiates the parameters of a Security Association with the Agent 210, and sends the parameters to the Agent 210. (Page 9, Lines 24-26; Page 10, Lines 4-5; Page 10, Lines 13-14; Page 10, Lines 17-18; Page 10, Lines 21-25; Page 11, Lines 2-3; Page 11, Lines 12-14 and Fig 3, 4)

The B-TID in claim 1 of the present invention is different from the identity received by the Visited GW 230 of Faccin. The claim 1 requires "the B-TID being assigned to the roaming user by a Bootstrapping Server Function (BSF) based upon a mutual authentication of the roaming user with the BSF that performs user identity initial verification in a generic authentication architecture in a home network of the roaming user," but Faccin fails to disclose this feature.

Moreover, in the Faccin, the **Visited GW 230 forwards the request message from the Mobile Node 200** to the Subscriber database/Authentication Center 260 through the Home GW 240, and **then the Mobile Node 200 is verified by the Subscriber database/Authentication Center 260**. That is, **the Mobile Node 200 was verified after the Visited GW 230 received the request message**.

However, in the claim 1 of the present invention, the **application server in the visited network receives a service request message** from the roaming user, the service request message **containing a B-TID**. **The B-TID was assigned** to the roaming user by the BSF **based upon the**

authentication of the roaming user and the BSF which performs user identity initial verification in the home network of the roaming user. That is, **the roaming user was identified by the BSF before the visited network received the service request message**. In the claim 1 of the present invention, the application service can obtain the roaming user's user information through the authentication entity without identifying the roaming user after receiving the service request message from the roaming user.

Therefore, even if 3GPP could be combined with Faccin, it still would not have the features recited in the claim 1.

Therefore, 3GPP and Faccin, individually or in combination, fail to teach or suggest the above features as recited by the claim 1 of the present invention.

For at least the foregoing reasons, claim 1 should be allowable over 3GPP and Faccin.

Claims 3, 4, 5, 7, 10 and 13 should be allowable at least due to their dependence from claim 1.

Claim 16 is an apparatus claim reciting features similar to the above features of claim 1. Therefore, Applicant submits that the claim 16 should be allowable at least for one or more of the reasons set forth above regarding claim 1. Claim 17 should be allowable at least due to its dependence from claim 16.

Claim 18 is a system claim reciting features similar to the above features of claim 1 and claim 16. Therefore, Applicant submits that the claim 18 should be allowable at least for one or more of the reasons set forth above regarding claim 1 and claim 16. Claim 19 should be allowable at least due to its dependence from claim 18.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. Applicant does not acquiesce to any argument not specifically addressed herein. Rather, Applicant believes the amendments and arguments contained herein overcome all rejections presented.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

By _____

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